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ABSTRACT

In 1981 a study conducted at Northern Illinois University focused on students who left a university, transferred to a community college, and subsequently enrolled at NIU. The study sought to determine the size of the reverse transfer population attending NIU, the academic characteristics of their college attendance, their success at NIU, and possible factors in their success. Of the total number of transfer students who entered NIU during 1975-76, 15% (N=269) met the criteria of the study, i.e., had been a reverse transfer student prior to NIU attendance and had earned at least six semester hours at the senior institution and 12 hours at the community college. Data were collected on the following variables: sex, age, American College Testing Program score, high school class rank, and senior and two-year institutions attended; semester hours attempted and earned, honor points earned, and grade point averages (GPA's) at the original senior institution, community college, and NIU; associate degree earned; academic status; and major. Selected findings include the following: (1) 45% of the students had been in academic difficulty at their initial senior institution, raised their GPA at the community college, and maintained a 2.0 GPA or higher at NIU; (2) students in academic difficulty were more likely to complete an associate degree; and (3) by 1981, 61.3% had completed a bachelor's degree. The study report details methodology and findings, presents a discriminant analysis of variables in relation to NIU success, and offers conclusions and recommendations. (AYC)

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A STUDY OF REVERSE TRANSFERS WHO ENTERED NORTHERN ILLINOIS UNIVERSITY DURING 1975-76, AN ANALYSIS OF THEIR ACADEMIC PROGRESS

by

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A Report to the
Office of Registration and Records
Northern Illinois University

JC 810 676

De Kalb, Illinois
November, 1981

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INTRODUCTION

Reverse transfer students are a little studied segment of the college student population. Students who leave four year colleges and universities and transfer to community colleges represent a large and uncharted population. In Illinois, the size of the reverse transfer student population was first reported in an Illinois Council on Articulation publication which indicated that for the 1967-68 school year more students were transferring to two-year colleges from the four-year colleges and universities than were transferring from the two-year colleges to the four-year institutions. (1) Illinois Board of Higher Education reports indicate that the reverse transfer population during the 1970's was still quite large. (2)

STATEMENT OF THE PROBLEM

One important question about reverse transfer that needs to be adequately researched is, "To what extent do reverse transfers return to senior institutions and complete bachelors degree programs after completing their community college studies ?". A 1979 study by Swedler found that 50 percent of the reverse transfers surveyed in 6 Illinois community colleges planned to transfer back to a senior institution. (3) This 1981 study focused on the academic experiences of reverse

transfers who return to a university after a community college program. It specifically will attempt to determine: (1) the size of the returning reverse transfer population to the university; (2) academic characteristics of their 4→2→4 attendance; (3) their success in the university, and (4) possible factors in their success.

DEFINITION OF TERMS

Academic Difficulty

Status of a student whose cumulative grade point average is less than 2.0 on a 4.0 scale; or who even though having a cumulative grade point average above 2.0 has been placed on probation or dismissed by the college or university he is attending.

Community College

A two-year college that offers lower division college work leading to immediate employment, transfer to a senior college or university, and for general cultural value. Grants an associate degree upon completion of two years of course work.

Good Standing

Status of a student with a cumulative grade point average of 2.0 or higher on a 4.0 scale.

Grade Point Average

Measure of academic performance computed by dividing honor points earned by semester hours attempted.

NIU Status

A Northern Illinois University students academic progress at the time of the study is classified into one of five categories. 1) completed a bachelors degree. 2) in good standing and still attending NIU. 3) in good standing no longer attending NIU. 4) in academic difficulty. 5) academic dismissal.

Previous Academic Difficulty

The status of a student in academic difficulty during initial senior institution enrollment.

Reverse Transfer

An individual who initially enrolls in a senior institution and transfers to a community college prior to obtaining a degree. In this study, a reverse transfer student is a student who has earned at least six semester hours in the senior institution prior to transferring to a community college where he or she earned a minimum of twelve semester hours.

Semester Hours Attempted

A quantative measure of course load for students on the semester system. In this study semester hours attempted does not include withdrawals. All quarter hours were converted to 2/3 of a semester hour and rounded to the nearest whole number.

Semester Hours Earned

The number of hours that a student completed with a passing

grade. It does not include incompletes or failing grades. It does include proficiency exam credit and CLEP hours awarded.

Senior Institution

A college or university which offers a degree at the bachelor's level and has at least four years of post-secondary education available.

SELECTION OF THE POPULATION

The Office of Registration and Records, Northern Illinois University cooperated with this study by providing a computer print-out on all transfer students who entered NIU during the 1975-76 academic year. Of the 1,795 names indicated on the print-out 773 students (43 percent) had been a reverse transfer prior to entering NIU. The records of these 773 students were scrutinized to determine whether or not they had earned at least six semester hours in the senior institution and earned at least twelve hours in the community college. Only 357 students, or 19.88 percent of the total transfer population met these criteria. Most of the students eliminated from the study population had not earned 12 hours (one semesters work) in the community college prior to transfer back to a senior institution. The student records of all 357 reverse transfers were studied. A total of 269 students were included in the final study. The remaining student's records did not match the computer print-out of their status

and were dropped from the final population. The 269 reverse transfers represented 15 percent of the total number of transfer students who entered NIU during the 75-76 school year.

DATA COLLECTION

Data were collected on the following variables: sex, age, ACT composite score, high school class rank, senior institutions and community colleges attended. Academic progress was recorded with the following variables: semester hours attempted, semester hours earned, honor points earned, semester attended, and grade point averages for the senior institution, the community college, and Northern Illinois University. Other variables involved in the study were: academic difficulty in the initial senior institution, associate degree earned, year associate degree was awarded, NIU status, and NIU major.

ANALYSIS OF THE DATA

The data were coded, keypunched, and computer analyzed using SPSS. Reports on the data were run on the total population and by sex, previous academic difficulty, associate degree status, and initial senior institution: NIU vs. Non-NIU.

RESULTS

An analysis of the study data revealed the following findings.

Sex

Approximately 58 percent of the study population were males and 42 percent females. Table one indicates that males tended to be in academic difficulty more frequently than females at the initial senior institution attended. While 60.6 percent of the males were experiencing academic difficulty, 23.7 percent of the females were in academic difficulty.

Table 1

Academic Status at Initial Senior Institution by Sex

Academic Status	Males N	Males %	Females N	Females %
Academic Difficulty	94	60.6	27	23.7
No Academic Difficulty	61	39.4	87	76.3
Total	155	100.0	114	100.0

Age

Table 2 reports sex and age data for the study population. The reverse transfers ranged in age from 18 to 52 when they entered NIU. The students mean age was 24.59 years. The median age was 22.18 years and the mode was 20 years of age. The male mean age was 23.96 years. The female mean age was 25.44 years. The median age was 22.32 years for males,

Table 2

Age of Students entering NIU
After Reverse Transfer
(N=269)

Age	Males		Females		Total		Cummulative
	N	%	N	%	N	%	%
18			1	0.9	1	0.4	0.4
19	9	5.8	7	6.1	16	5.9	6.3
20	27	17.4	26	22.8	53	19.7	26.0
21	30	19.4	18	15.8	48	17.8	43.8
22	14	9.0	10	8.8	24	8.9	52.7
23	12	7.7	7	6.1	19	7.1	59.8
24	13	8.4	3	2.6	16	5.9	65.7
25	5	3.2	1	0.9	6	2.2	67.9
26	10	6.5	4	3.5	14	5.2	73.1
27	6	3.9	2	1.8	8	3.0	76.1
28	5	3.2	2	1.8	7	2.6	78.7
29	6	3.9	3	2.6	9	3.3	82.0
30	3	1.9	5	4.4	8	3.0	85.0
31	3	1.9	1	0.9	4	1.5	86.5
32	4	2.6	3	2.6	7	2.6	89.1
33			3	2.6	3	1.1	90.2
34	1	0.6	2	1.8	3	1.1	91.3
35	3	1.9	2	1.8	5	1.9	93.2
36	1	0.6	2	1.8	3	1.1	94.3
37			2	1.8	2	0.7	95.0
38	1	0.6	4	3.5	5	1.9	96.9
39			1	0.9	1	0.4	97.3
40	1	0.6			1	0.4	97.7
41			1	0.9	1	0.4	98.1
45			3	2.6	3	1.1	99.2
46			1	0.9	1	0.4	99.6
52	1	0.6			1	0.4	100.0
Total	155	100.0	114	100.0	269	100.0	100.0
$\bar{X}$	23.961		25.447		24.591		
Md	22.321		22.000		22.187		
Mo	21.000		20.000		20.000		

and 22 years for females. The modal age was 21 years for males and 20 years for females. The data suggests that many reverse transfers are entering NIU at an age when most of their original classmates would have completed their bachelors degrees. It also appears that women over 30 are more likely to return to the university after reverse transferring than men over thirty.

ACT Composite Score

Table 3 indicates the ACT composite scores available from the reverse transfers NIU records. A total of 121 (45 percent) of the students had no ACT scores in their records. The mean ACT composite score was 22.72; the median score was 23.39. Students in academic difficulty in their initial senior institution had a slightly lower ACT mean and median: 21.74 and 21.93 respectively. Students not in academic difficulty at the first college they attended had a mean ACT score of 23.43 and a median score of 24.21.

High School Class Rank

Data on high school class rank were missing from 45 per cent (N = 121) of the NIU records of the reverse transfer students. The average class rank was 63.85 (high = 100), the median rank was 67.79 (see Table 4). The class rank averages for sex and previous academic difficulty varied from the total. Men had lower class ranks than women; the averages for men and women were 58.54 and 70.25 respectively. Similar values were recorded for students in academic difficulty

Table 3

ACT Composite Scores

Score	N	%	Adjusted %	Cummulative %
9	1	0.4	0.7	0.7
10	2	0.7	1.4	2.0
13	1	0.4	0.7	2.7
15	3	1.1	2.0	4.7
16	7	2.6	4.7	9.5
17	8	3.0	5.4	14.9
18	6	2.2	4.1	18.9
19	3	1.1	2.0	20.9
20	10	3.7	6.8	27.7
21	14	5.2	9.5	37.2
22	11	4.1	7.4	44.6
23	9	3.3	6.1	50.7
24	13	4.8	8.8	59.5
25	14	5.2	9.5	68.9
26	15	5.6	10.1	79.1
27	9	3.3	6.1	85.1
28	13	4.8	8.8	93.9
29	9	3.3	6.1	100.0
Missing	121	45.0	---	---
Total	269	100.0	100.0	

$\bar{X}$ 22.723
Md 23.389
Mo 26.000

and those not in academic difficulty at their initial senior institution. Their average class ranks were 55.75 and 70.18 respectively. Over three fourths of the students studied were ranked in the upper one-half of their high school class.

Table 4

High School Class Rank (highest = 100)

Rank	N	%	Adjusted %	Cummulative %
1 - 10	5	1.9	3.4	3.4
11 - 20	6	2.2	4.0	7.4
21 - 30	5	1.9	3.4	10.8
31 - 40	5	1.9	3.4	14.2
41 - 50	14	5.2	9.4	23.6
51 - 60	21	7.8	14.2	37.8
61 - 70	31	11.5	21.0	58.8
71 - 80	22	8.2	14.8	73.6
81 - 90	22	8.2	14.8	88.4
91 - 100	17	6.3	11.6	100.0
Missing	121	45.0	---	
Total	269	100.0	100.0	

$\bar{X}$ 63.845
Md 67.786
Mo 68.000

Senior Institutions Attended

The reverse transfers had attended senior institutions in thirty states. Tables 31 and 32 in Appendix A report senior institutions attended by state. Colleges and universities in Illinois accounted for 65 percent of the institutions attended. Illinois public universities comprised 46 percent of all senior institutions attended. Northern Illinois University was the most frequently attended state school (23.6 percent). The majority of reverse transfers in this study attended only one senior institution before transferring to a community college (see Table 5). About one student in six attended two senior institutions. One student had attended three.

Table 5

Number of Senior Institutions Attended Before Transfer to a Community College

Senior Institutions	N	Percent
1	224	83.3
2	44	16.3
3	1	0.4
Total	269	100.0

Senior Institution Semester Hours Attempted

The reverse transfer students attempted an average of 35.74 semester hours of credit (not including withdrawals) at their initial senior institution. This represents approximately one full year of academic credit. Students in academic difficulty at their initial senior institution averaged 39.80 hours attempted while students not in academic difficulty attempted an average of 32.37 hours (see Table 6).

Senior Institution Semester Hours Earned

The average number of semester hours earned at the senior institution was 32.30. Most of the difference between the average hours attempted and earned is explained by the seven hour difference between the averages of hours attempted and earned by students in academic difficulty: 39.80 and 32.88 respectively. Students in academic difficulty and not in academic difficulty earned an average of one years college credit in the senior institution (see Table 7).

Table 6

Senior Institution Semester Hours Attempted

Semester Hours Attempted	Academic Difficulty N	%	cum %	No Academic Difficulty N	%	cum %	Total N	%	cum %
6 - 10	2	1.7	1.7	11	7.4	7.4	13	4.8	4.8
11 - 20	7	5.7	7.4	38	25.7	33.1	45	16.8	21.6
21 - 30	37	30.6	38.0	34	23.0	56.1	71	26.4	48.0
31 - 40	26	21.5	59.5	30	20.3	76.4	56	20.8	68.8
41 - 50	19	15.7	75.2	8	5.4	81.8	27	10.0	78.8
51 - 60	14	11.6	86.8	12	8.1	89.9	26	9.7	88.5
61 - 70	9	7.4	94.2	7	4.7	94.6	16	5.9	94.4
71 - 80	2	1.7	95.9	4	2.7	97.3	6	2.3	96.7
81 - 90	3	2.4	98.0	1	0.7	98.0	4	1.4	98.1
91 -100	2	1.7	100.0	1	0.7	98.7	3	1.2	99.3
101 -110				2	1.3	100.0	2	0.7	100.0
Total	121	100.0		148	100.0		269	100.0	
$\bar{X}$	39.802			32.371			35.739		
Md	33.000			29.600			30.923		
Mo	33.000			15.00, 30.00			30.000		

Table 7

Senior Institution Semester Hours Earned

Semester Hours Earned	Academic Difficulty N	%	cum %	No Academic Difficulty N	%	cum %	Total N	%	cum %
6 - 10	6	5.0	5.0	11	7.4	7.4	17	6.3	6.3
11 - 20	20	16.5	21.5	39	26.4	33.8	59	22.0	28.3
21 - 30	40	33.0	54.5	35	23.6	57.4	75	27.8	56.1
31 - 40	21	17.4	71.9	29	19.6	77.0	50	18.6	74.7
41 - 50	19	15.7	87.6	9	6.1	83.1	28	10.4	85.1
51 - 60	8	6.6	94.2	10	6.8	89.9	18	6.7	91.8
61 - 70	2	1.7	95.9	8	5.4	95.3	10	3.7	95.5
71 - 80	1	0.8	96.7	3	2.0	97.3	4	1.5	97.0
81 - 90	4	3.3	100.0	1	0.7	98.0	5	1.0	98.0
91 -100				3	2.0	100.0	3	2.0	100.0
101 -110									
Total	121	100.0		148	100.0		269	100.0	
$\bar{X}$	32.884			31.818			32.297		
Md	29.250			28.300			28.600		
Mo	25.000			15.000			15.000		

Semesters Attended Senior Institution

Table 8 reports the number of semesters reverse transfers attended senior institutions. The mode occurred at 2 semesters. Approximately 38 percent of the students spent one academic year in the senior institution. An additional 32 percent spent one or three semesters in the senior institution, 16 percent each semester. Thirty five percent of the students in academic difficulty attended the senior institution 4 or more semesters; twenty five percent of those in good standing were enrolled for 2 years or more.

Senior Institution Grade Point Averages

Grade Point averages earned in the senior institution are reported in table 9. Students in academic difficulty had an average GPA one point below students in good standing. A total of 40.9 percent of the reverse transfers had a GPA below 2.0. An additional eleven students had GPA's above 2.0 but were dismissed or on academic probation at their senior institution; they are classified as being in academic difficulty.

Table 8

Semesters Attended Senior Institution

Semesters Attended	Academic Difficulty			No Academic Difficulty			Total		
	N	%	cum %	N	%	cum %	N	%	cum %
1	5	4.1	4.1	38	25.7	25.7	43	16.0	16.0
2	50	41.3	45.4	53	35.8	61.5	103	38.3	54.3
3	24	19.9	65.3	19	12.8	74.3	43	16.0	70.3
4	20	16.5	81.8	19	12.8	87.1	39	14.5	84.8
5	12	9.9	91.7	6	4.1	91.2	18	6.7	91.4
6	8	6.6	98.3	7	4.7	95.9	15	5.6	97.0
7	1	0.8	99.2				1	0.4	97.4
8	1	0.8	100.0	4	2.7	98.6	5	1.9	99.3
9				1	0.7	99.3	1	0.4	99.7
10				1	0.7	100.0	1	0.4	100.0
Total	121	100.0		148	100.0		269	100.0	
$\bar{X}$		3.140			2.703			2.900	
Md		2.729			2.179			2.388	
Mo		2.000			2.000			2.000	

Table 9

Senior Institution Grade Point Averages
(A = 4.0)

Grade Point Averages	Academic Difficulty N	%	cum %	No Academic Difficulty N	%	cum %	Total N	%	cum %
0.001 - 0.499	1	0.8	0.8				1	0.4	0.4
0.500 - 0.999	8	6.6	7.4				8	2.9	3.3
1.000 - 1.499	32	26.5	33.9				32	11.9	15.2
1.500 - 1.999	69	57.0	90.9				69	25.7	40.9
2.000 - 2.499	10	8.3	99.2	67	45.3	45.3	77	28.6	69.5
2.500 - 2.999	1	0.8	100.0	47	31.7	77.0	48	17.9	87.4
3.000 - 3.499				23	15.6	92.6	23	8.5	95.9
3.500 - 4.000				11	7.4	100.0	11	4.1	100.0
Total	121	100.0		148	100.0		269	100.0	
$\bar{X}$	1.594			2.638			2.169		
Md	1.674			2.533			2.156		
Minimum	0.484			2.000			0.484		
Maximum	2.903			4.000			4.000		

Community Colleges Attended

The reverse transfers involved in the study had attended community colleges in eight states. Table 33 in Appendix B reports the community colleges attended by state. Community colleges in Illinois accounted for 97 percent of the schools attended. Most of the community colleges attended were in the Northern Illinois University service area. Over ninty percent of the reverse transfers attended only one community college prior to transferring back to a senior institution (see Table 10).

Table 10

Number of Community Colleges Attended

Community Colleges	N	Percent
1	245	91.1
2	24	8.9
Total	269	100.0

Community College Semester Hours Attempted

While attending the community college, the reverse transfers attempted an average of 36.65 semester hours. Once again students in previous academic difficulty attempted more hours than students not in previous academic difficulty, 39.32 versus 34.47 (see Table 11).

Table 11

Community College Semester Hours Attempted

Semester Hours Attempted	Previous Academic Difficulty			No Previous Academic Difficulty			Total		
	N	%	cum %	N	%	cum %	N	%	cum %
12 - 20	13	10.7	10.7	30	20.3	20.3	43	16.0	16.0
21 - 30	30	24.8	35.5	35	23.6	43.9	65	24.1	40.1
31 - 40	29	24.0	59.5	38	25.7	69.6	67	25.0	65.1
41 - 50	22	18.2	77.7	21	14.2	83.8	43	15.9	81.0
51 - 60	17	14.0	91.7	14	9.4	93.2	31	11.6	92.6
61 - 70	4	3.3	95.0	7	4.8	98.0	11	4.1	96.7
71 - 80	2	1.7	96.7	3	2.0	100.0	5	1.8	98.5
81 - 90	2	1.6	98.3				2	0.8	99.3
91 -100	2	1.7	100.0				2	0.7	100.0
101 -110									
Total	121	100.0		148	100.0		269	100.0	
$\bar{X}$	39.322			34.473			36.654		
Md	36.400			33.300			34.708		
Mo	27.00, 35.00			24.00, 34.00			35.000		

Community College Semester Hours Earned

The reverse transfers earned an average of 36.42 semester hours while attending the community college (see Table 12). The students in previous academic difficulty attempted approximately 39 semester hours at the community college level, those who did not have previous academic difficulty attempted approximately 34 semester hours. Students who completed an associate degree earned an average of 42.77 hours; a total of 14 more hours than the average of students who did not earn an associate degree (28.65 hours).

Semesters Attended Community College

The reverse transfers attended the community college an average of 4.16 semesters (see Table 13). This is an average of 1 semester longer than the average number of semesters at the senior institution (2.90). These increases are probably due to the fact that a large proportion of the reverse transfers attended the community college as part-time students.

Community College Grade Point Averages

Table 14 reports the GPA data on the reverse transfers in the community college. The GPAs of all the groups increased. Students in previous academic difficulty in the senior institution averaged a GPA of 2.99, an increase of 1.4 points over their senior institution overall GPA of 1.59. Students not in previous academic difficulty increased their average GPA five tenths of a point from 2.64 to 3.17. The average

Table 12

Community College Semester Hours Earned

Semester Hours Earned	Previous Academic Difficulty			No Previous Academic Difficulty			Total		
	N	%	cum %	N	%	cum %	N	%	cum %
12 - 20	13	10.7	10.7	32	21.6	21.6	45	16.7	16.7
21 - 30	32	26.5	37.2	33	22.3	43.9	65	24.2	40.9
31 - 40	26	21.5	58.7	38	25.7	69.6	64	23.8	64.7
41 - 50	25	20.6	79.3	21	14.2	83.8	46	17.1	81.8
51 - 60	15	12.4	91.7	14	9.4	93.2	29	10.8	92.6
61 - 70	3	2.5	94.2	7	4.8	98.0	10	3.7	96.3
71 - 80	3	2.5	96.7	3	2.0	100.0	6	2.2	98.5
81 - 90	3	2.5	99.2				3	1.1	99.6
91 -100	1	0.8	100.0				1	0.4	100.0
Total	121	100.0		148	100.0		269	100.0	
$\bar{X}$	39.041			34.284			36.424		
Md	36.417			33.000			34.650		
Mo	27.00, 36.00			34.000			27, 30, 35, 36		

Table 13

Semesters Attended Community College

Semesters Attended	Previous Academic Difficulty N	%	cum %	No Previous Academic Difficulty N	%	cum %	Total N	%	cum %
1	3	2.5	2.5	14	9.5	9.5	17	6.3	6.3
2	20	16.5	19.0	30	20.4	29.7	50	18.6	24.9
3	22	18.2	37.2	26	17.6	47.3	48	17.9	42.8
4	30	24.8	62.0	29	19.6	66.9	59	21.9	64.7
5	19	15.7	77.7	18	12.2	79.1	37	13.7	78.4
6	10	8.3	86.0	16	10.8	89.9	26	9.7	88.1
7	4	3.3	89.3	5	3.3	93.2	9	3.3	91.4
8	5	4.1	93.4	6	4.1	97.3	11	4.1	95.1
9	6	5.0	98.4				6	2.2	97.7
10									
11	1	0.8	99.2	2	1.3	98.6	3	1.1	98.8
12				1	0.7	99.3	1	0.4	99.2
13				1	0.7	100.0	1	0.4	99.6
19	1	0.8	100.0				1	0.4	100.0
Total	121	100.0		148	100.0		269	100.0	
$\bar{X}$	4.429			3.946			4.163		
Md	4.017			3.638			3.831		
Mo	4.000			2.000			4.000		

Table 14

Community College Grade Point Averages
(A = 4.0)

Grade Point Averages	Previous Academic Difficulty N	%	cum %	No Previous Academic Difficulty N	%	cum %	Total N	%	cum %
1.500 - 1.999	1	0.8	0.8	4	2.7	2.7	5	1.9	1.9
2.000 - 2.499	26	21.5	22.3	15	10.1	12.8	41	15.2	17.1
2.500 - 2.999	32	26.5	48.8	32	21.7	34.5	64	23.8	40.9
3.000 - 3.499	39	32.2	81.0	48	32.4	66.9	87	32.3	73.2
3.500 - 4.000	23	19.0	100.0	49	33.1	100.0	72	26.8	100.0
Total	121	100.0		148	100.0		269	100.0	
$\bar{X}$	2.999			3.169			3.093		
Md	3.000			3.196			3.105		
Minimum	1.857			1.750			1.750		
Maximum	4.000			4.000			4.000		

total GPA increased nine tenths of a point from 2.17 to 3.09. Approximately 2 percent of the total community college GPAs were below 2.0.

Associate Degrees Completed

A total of 55 percent of the reverse transfer students in the study completed an associate degree. Among the 148 degrees earned only four were associate of applied science degrees that are not covered in the Illinois compact. Table 15 indicates that students in previous academic difficulty were more likely to complete an associate degree than students not in previous academic difficulty: 66.9 percent as compared to 45.3 percent. The students in previous academic difficulty were more likely to complete an associate degree because of the advantages that the Illinois compact awarded them when they transferred to NIU, i.e. junior standing and completion of the university general education requirements. Among the reverse transfers who completed a bachelors degree at NIU, 60.6 percent of them had earned an associate degree. Among the students not completing a bachelors degree at NIU, 46.2 percent earned an associate degree.

Table 15

Associate Degrees Completed

Associate Degree	Previous Academic Difficulty N	%	No Previous Academic Difficulty N	%	Total N	%
Yes	81	66.9	67	45.3	148	55.0
No	40	33.1	81	54.7	121	45.0
Total	121	100.0	148	100.0	269	100.0

Year Associate Degree Awarded

Table 16 presents the data collected on the year associate degrees were awarded to the reverse transfers. The records of 28 of the students did not indicate the degree date. Almost two-thirds of the degrees were awarded in 1975. Most students transferred to NIU within one year of completing an associate degree.

Table 16

Year Associate Degree Awarded (N = 148)

Year	N	%	Adjusted %
1971	3	2.0	2.5
1972	1	0.7	0.8
1973	4	2.7	3.3
1974	16	10.8	13.3
1975	77	52.0	64.2
1976	19	12.8	15.8
Missing	28	18.9	--
Total	148	100.0	100.0

Northern Illinois University
Semester Hours Attempted

After returning to the senior institution the students attempted an average of 49.61 semester hours of course work (see Table 17). The reverse transfer's final NIU status showed a large difference in the number of hours attempted. Students who completed a bachelors degree averaged 63.95 semester hours at NIU. Those students who did not complete a bachelors degree attempted an average of 26.87 hours. This represents a difference of over one year's credits.

Northern Illinois University
Semester Hours Earned

The students earned an average of 47.42 semester hours of credit at NIU after leaving the community college (see Table 18). Final NIU status showed the greatest difference

Table 17

Northern Illinois University Semester Hours Attempted

Semester Hours Attempted	Previous Academic Difficulty N	%	cum %	No Previous Academic Difficulty N	%	cum %	Total N	%	cum %
1 - 10	8	6.6	6.6	11	7.4	7.4	19	7.1	7.1
11 - 20	17	14.1	20.7	17	11.5	18.9	34	12.6	19.7
21 - 30	14	11.5	32.2	12	8.1	27.0	26	9.7	29.4
31 - 40	7	5.8	38.0	12	8.1	35.1	19	7.0	36.4
41 - 50	10	8.3	46.3	12	8.1	43.2	22	8.2	44.6
51 - 60	19	15.7	62.0	22	14.9	58.1	41	15.3	59.9
61 - 70	22	18.2	80.2	27	18.3	76.4	49	18.2	78.1
71 - 80	13	10.7	90.9	17	11.4	87.8	30	11.1	89.2
81 - 90	4	3.3	94.2	13	8.8	96.6	17	6.3	95.5
91 -100	5	4.1	98.3	2	1.4	98.0	7	2.6	98.1
101 -110				3	2.0	100.0	3	1.2	99.3
111 -120	2	1.7	100.0				2	0.7	100.0
Total	121	100.0		148	100.0		269	100.0	
X	48.405			50.601			49.613		
Md	52.000			56.786			54.000		
Mo	12.000			57.000			12.000		

in hours earned: bachelors degree holders earned an average of 63.24 hours at NIU while non-bachelors students averaged 22.31 hours earned.

Semester Attended NIU

Table 19 reports the average number of semesters that the students attended NIU after leaving the community college was 4.53. The reverse transfers final NIU status showed the largest difference in average semesters attended. Bachelors degree holders spent 5.60 semesters at NIU on average while non-bachelors students average attendance was 2.74 semesters.

NIU Grade Point Averages

After leaving the community college the students overall NIU GPA was 2.66 on a 4.0 scale. Previous academic difficulty students averaged a GPA of 2.39 while students not in previous academic difficulty averaged 2.89 (see Table 20). A total of 50 students (18.6 percent) failed to earn a 2.0 (C) GPA at NIU. Most of these students (N=32) had previous academic difficulty in their initial senior institution. Eighteen students (6.7 percent) in good standing in their initial senior institution failed to earn a 2.0 GPA at NIU. A total of 73.6 percent of the students in previous academic difficulty earned a GPA of over 2.00 at NIU. When analyzed by final NIU status, students who completed bachelors degrees had an overall GPA of 3.04. Students who did not complete a bachelors degree had an average GPA of 2.07.

A total of 39.5 percent of the students who attended NIU

Table 18

Northern Illinois University Semester Hours Earned

Semester Hours Earned	Previous Academic Difficulty			No Previous Academic Difficulty			Total		
	N	%	cum %	N	%	cum %	N	%	cum %
0 - 10	17	14.0	14.0	14	9.5	9.5	31	11.5	11.5
11 - 20	17	14.1	28.1	20	13.5	23.0	37	13.8	25.3
21 - 30	5	4.1	32.2	7	4.7	27.7	12	4.4	29.7
31 - 40	13	10.8	43.0	11	7.4	35.1	24	9.0	38.7
41 - 50	7	5.8	48.8	12	8.1	43.2	19	7.0	45.7
51 - 60	23	19.0	67.8	26	17.6	60.8	49	18.2	63.9
61 - 70	17	14.0	81.8	27	18.3	79.1	44	16.4	80.3
71 - 80	12	9.9	91.7	14	9.4	88.5	26	9.7	90.0
81 - 90	5	4.2	95.9	12	8.1	96.6	17	6.3	96.3
91 -100	3	2.5	98.4	3	2.0	98.6	6	2.2	98.5
101 -110	1	0.8	99.2	2	1.4	100.0	3	1.1	99.6
111 -120	1	0.8	100.0				1	0.4	100.0
Total	121	100.0		148	100.0		269	100.0	
$\bar{X}$	45.165			49.257			47.416		
Md	50.875			56.500			53.750		
Mo	9.00, 54.00			57.000			9.00, 15.00		

Table 19

Semesters Attended Northern Illinois University

Semesters Attended	Previous Academic Difficulty			No Previous Academic Difficulty			Total		
	N	%	cum %	N	%	cum %	N	%	cum %
1	14	11.6	11.6	16	10.8	10.8	30	11.2	11.2
2	15	12.4	24.0	25	16.9	27.7	40	14.8	26.0
3	10	8.3	32.3	9	6.1	33.8	19	7.1	33.1
4	17	14.0	46.3	29	19.6	53.4	46	17.1	50.2
5	22	18.2	64.5	21	14.2	67.6	43	16.0	66.2
6	19	15.7	80.2	19	12.8	80.4	38	14.1	80.3
7	12	9.9	90.1	11	7.4	87.8	23	8.6	88.9
8	6	4.9	95.0	10	6.8	94.6	16	5.9	94.8
9	3	2.5	97.5	6	4.0	98.6	9	3.3	98.1
10				1	0.7	99.3	1	0.4	98.5
11	3	2.5	100.0	1	0.7	100.0	4	1.5	100.0
Total	121	100.0		148	100.0		269	100.0	
X		4.611			4.459			4.528	
Md		4.705			4.328			4.489	
Mo		5.000			4.000			4.000	

Table 20

Northern Illinois University Grade Point Averages
(A = 4.0)

Grade Point Averages	Previous Academic Difficulty			No Previous Academic Difficulty			Total		
	N	%	cum %	N	%	cum %	N	%	cum %
0.0 - 0.499	4	3.3	3.3	1	0.7	0.7	5	1.9	1.9
0.500 - 0.999	5	4.1	7.4				5	1.9	3.8
1.000 - 1.499	7	5.8	13.2	7	4.7	5.4	14	5.1	8.9
1.500 - 1.999	16	13.2	26.4	10	6.8	12.2	26	9.7	18.6
2.000 - 2.499	34	28.1	54.5	21	14.2	26.4	55	20.4	39.0
2.500 - 2.999	22	18.2	72.7	29	19.5	45.9	51	19.0	58.0
3.000 - 3.499	21	17.4	90.1	47	31.8	77.7	68	25.3	83.3
3.500 - 4.000	12	9.9	100.0	33	22.3	100.0	45	16.7	100.0
Total	121	100.0		148	100.0		269	100.0	
$\bar{X}$	2.393			2.885			2.664		
Md	2.414			3.017			2.796		
Minimum	0.000			0.375			0.000		
Maximum	4.000			4.000			4.000		

as their initial senior institution and were in academic difficulty failed to earn a 2.0 GPA in their second attendance at NIU. By comparison 20.5 percent of the students in academic difficulty at their initial senior institution (not NIU) failed to earn a 2.0 GPA at NIU.

NIU Status

A five year period elapsed from the time the 269 reverse transfers entered NIU during the 1975-76 school year until their NIU status was determined during the 1980-81 school year. Table 21 reports the reverse transfer's NIU status. A total of 61.3 percent of the total population completed a bachelors degree and 38.7 did not. The students in previous academic difficulty had a 55.4 percent bachelors degree completion rate at NIU. Those not in previous academic difficulty had a 66.2 percent graduation rate.

A wide difference appeared among students in previous academic difficty when analyzed by NIU versus Non-NIU attendance for the initial senior institution. NIU returnees in previous academic difficulty attained a 34.2 percent graduation rate at NIU against a 65.1 percent graduation rate for previous academic difficulty students who attended a senior institution other than NIU initially (see Table 22). It appears that students in previous academic difficulty who attend a different senior institution after leaving the community college are twice as likely to complete a bachelors degree than those students who return to the same school

Table 21

Northern Illinois university Status

Status	Previous Academic Difficulty		No Previous Academic Difficulty		Total	
	N	%	N	%	N	%
Bachelor's Degree	67	55.4	98	66.2	165	61.3
Good Standing -Attending	7	5.8	2	1.4	9	3.3
Good Standing -Not Attending	11	9.1	30	20.3	41	15.2
Academic Difficulty	8	6.6	8	5.4	16	5.9
Academic Dismissal	28	23.1	10	6.8	38	14.1
Total	121	100.0	148	100.0	269	100.0

Table 22

NIU Status of Reverse Transfers by First Senior Institution: NIU and Non-NIU

Status	Previous Academic Difficulty				No Previous Academic Difficulty				Total			
	NIU		Non-NIU		NIU		Non-NIU		NIU		Non-NIU	
	N	%	N	%	N	%	N	%	N	%	N	%
Bachelor's Degree	13	34.2	54	65.1	26	72.2	72	64.3	39	52.7	126	64.6
Good Standing -Attending			7	8.4			2	1.8			9	4.6
Good Standing -Not Attending	6	15.8	5	6.0	10	27.8	20	17.9	16	21.6	25	12.8
Academic Difficulty	5	13.2	3	3.6			8	7.1	5	6.8	11	5.6
Academic Dismissal	14	36.8	14	16.9	—	—	10	8.9	14	18.9	24	12.3
Total	38	100.0	83	100.0	36	100.0	112	100.0	74	100.0	195	100.0

where they had academic problems.

While statistics were not collected on post graduate work done by the reverse transfers a number of graduates had taken graduate courses at NIU. Several students completed Masters degrees at NIU and a number were nearing their completion.

NIU Majors

Tables 23 and 24 report the top ten academic majors and majors by college of the reverse transfers at NIU. Four of the top ten majors were in the college of business. Three were in the college of professional studies, two in the college of education and one in the college of liberal arts and sciences. The reverse transfers enrollment by college was: business 35.7 percent; liberal arts and sciences 29.0 percent; professional studies 16.3 percent; education 13.8 percent; visual and performing arts 5.2 percent.

Proficiency Credit

Proficiency credit, credit by examination, New York Regents exam for nursing, CLEP hours, et cetera were reported in each institutions hours attempted and earned figures. A total of 43 reverse transfers (16 percent) earned proficiency credit of one kind or another. The range of hours earned was 2 - 27 hours, the mean was 9.3 hours, the median was 6 hours, and the mode was 3 hours. Fifty six point eight percent of the reverse transfers earned their proficiency credit at NIU,

Table 23

Top Ten Northern Illinois University Majors

Major	N	% of total
Accountancy	32	11.9
Management	26	9.7
Elementary Education	18	6.7
Marketing	16	5.9
Finance	14	5.2
Special Education	14	5.2
Home Economics	14	5.2
Industry & Technology	13	4.8
Journalism	11	4.1
Nursing	11	4.1
Total	169	62.8

Table 24

Northern Illinois University Majors by College

Major	N	%
College of Business		
Accountancy	32	11.9
Business Education	2	0.7
Finance	14	5.2
Management	26	9.7
Marketing	16	5.9
Secretarial Administration	1	0.4
Undecided Business	5	1.9
College Total	96	35.7
College of Education		
Elementary Education	18	6.7
Physical Education	3	1.1
Special Education	14	5.2

Table 24 (continued)

Major	N	%
Undecided Education	2	0.7
College Total	37	13.8
College of Liberal Arts and Sciences		
Biological Sciences	10	3.7
Chemistry	1	0.4
Computer Science	4	1.5
Economics	2	0.7
English	6	2.2
Geography	2	0.7
Geology	2	0.7
History	5	1.9
Journalism	11	4.1
Mathematical Sciences	4	1.5
Philosophy	1	0.4
Physics	1	0.4
Political Science	6	2.2
Psychology	7	2.6
Social Sciences	1	0.4
Sociology	5	1.9
Speech Communication	1	0.4
Undecided L A & S	9	3.3
College Total	78	29.0
College of Professional Studies		
Communication Disorders	4	1.5
Home Economics	14	5.2
Industry & Technology	13	4.8
Medical Technology	1	0.4
Nursing	11	4.1
College Total	44	16.4
College of Visual and Performing Arts		
Art	9	3.3
Music	4	1.5
Theater Arts	1	0.4
College Total	14	5.2

29.5 percent in the community college, and 13.6 percent at the initial senior institution. The NIU status of students who earned proficiency credit showed that 76.7 percent completed a bachelors degree.

SUMMARY

Average Hours Earned

The reverse transfers in this study earned an average of 68.7 semester hours of college credit before entering NIU (see Table 25). The greatest difference between average hours earned by the various groups was between the students who completed a bachelors degree and those who did not. Bachelors degree holders completed an average of 63.2 hours at NIU after leaving the community college while the students who did not complete a degree at NIU earned an average of 22.3 hours.

Average Semesters Attended

Table 26 indicates the average number of semesters the reverse transfers attended institutions of higher learning by various groupings. The reverse transfers spent an average of seven semesters at senior institutions and community colleges before entering NIU. Students who completed a bachelors degree spent on average 12.8 semesters finishing their undergraduate educations. Those not completing a bachelors degree spent 9.3 semesters on average attending colleges and universities. Even when allowing for a certain percentage of part-

Table 25

Summary Table of Average Hours Earned at the Senior Institution, Community College, and NIU by Academic Difficulty, Sex, NIU Status, Associate Degree Status, and Total Population

Mean Semester Hours Earned	Previous Academic Difficulty		Sex		NIU Status		Associate Degree		Total
	Yes	NO	M	F	B.S.	No B.S.	Yes	No	
Senior Institution	32.884	31.818	31.052	33.991	33.867	29.808	32.595	31.934	32.297
Community College	39.041	34.284	38.381	33.763	38.267	33.500	42.777	28.653	36.424
Northern Illinois University	45.165	49.257	46.187	49.088	63.242	22.308	47.108	47.793	47.416
Total	117.090	115.359	115.620	116.842	135.376	85.616	122.480	108.380	116.137

Table 26

Summary Table of Average Semesters Attended The Senior Institution, Community College, and NIU by Academic Difficulty, Sex, NIU Status, Associate Degree Status, and total Population

Mean Semesters Attended	Previous Academic Difficulty		Sex		NIU Status		Associate Degree		Total
	Yes	No	M	F	B.S.	No B.S.	Yes	No	
Senior Institution	3.140	2.696	2.897	2.895	2.994	2.740	2.919	2.868	2.900
Community College	4.331	3.872	4.032	4.140	4.236	3.827	4.669	3.355	4.163
Northern Illinois University	4.562	4.439	4.426	4.588	5.600	2.740	4.601	4.364	4.528
Total	12.033	11.007	11.355	11.623	12.830	9.307	12.189	10.587	11.591

time enrollment in this population it is taking reverse transfers almost six and one half years to complete a bachelors degree and over four and a half years for students who don't finish a degree to earn an average of seven semesters of college credit. While statistics were not collected on students majors at their initial senior institution and community college, a number of them had changed their academic major from school to school. This may account for some of the added time spent attending postsecondary institutions.

Average Grade Point Averages

The reverse transfer students raised their average GPA over .9 of a point at the community college over their initial senior institution average GPA; from 2.17 to 3.09. Students in previous academic difficulty increased their average GPA over one and four-tenths points in the community college over the senior institution (see Table 27). The total poulation average GPA in the community college was 3.09, after returning to a senior institution it was 2.66. The students who completed a bachelors degree average GPA dropped less than .2 of a point to 3.04 from 3.19 in the community college. For those students not completing a bachelors degree their average GPA fell almost .9 of a point to 2.07 from 3.10 in the community college. There were diferences on other study variables; by sex, females had higher average GPAs than males at all three postsecondary

Table 27

Summary Table of Average Grade Point Averages Earned at the Senior Institution, Community College, and NIU by Academic Difficulty, Sex, NIU Status, Associate Degree Status, and Total Population

Mean Grade Point Average	Previous Academic Difficulty		Sex		NIU Status		Associate Degree		Total
	Yes	No	M	F	B.S.	No B.S.	Yes	No	
Senior Institution	1.594	2.638	1.957	2.456	2.271	2.006	2.102	2.250	2.169
Community College	2.999	3.169	3.016	3.197	3.193	2.933	3.095	3.090	3.093
Northern Illinois University	2.393	2.885	2.469	2.929	3.041	2.065	2.690	2.631	2.664

institutions. The same was true for bachelor degree holders over those who did not earn a bachelors degree. Students not in previous academic difficulty had higher average GPAs than students in previous academic difficulty.

NIU Status

The reverse transfer students final NIU status indicated that 61.3 percent earned a bachelors degree. Of the remaining, 18.5 percent of the students were in good standing and 20 percent were in academic difficulty at NIU (see Table 28). Among the 3.3 percent who were in good standing while still enrolled at NIU, approximately one half were approaching the completion of a bachelors degree. Still others might transfer to yet another senior institution to complete a bachelors degree but no means of tracking this population further are possible. When analyzed by various groupings, the percent completing a bachelors degree varied slightly. Females, associate degree holders, and students not in previous academic difficulty were more likely to complete a bachelors degree (~66 percent) than males, students without an associate degree, and students in previous academic difficulty (~55 percent). These graduation rates indicate that reverse transfer students are a viable student population when they return to a university.

Table 28

Summary Table of NIU Status by Academic Difficulty, Sex, Associate Degree Status and Total Population

NIU Status (in Percent)	Previous Academic Difficulty		Sex		Associate Degree		Total
	Yes	No	M	F	Yes	No	
Bachelor's Degree	55.4	66.2	57.4	66.7	67.6	53.7	61.3
Good Standing -Attending	5.8	1.4	4.5	1.8	4.1	2.5	3.3
Good Standing -Not Attending	9.1	20.3	13.5	17.5	11.5	19.8	15.2
Academic Probation	6.6	5.4	7.1	4.4	4.1	8.3	5.9
Academic Dismissal	23.1	6.8	17.4	9.6	12.8	15.7	14.1

Discriminant Analysis

In order to analyze and predict the performance of reverse transfers at NIU, a discriminant analysis was run on the variable NIU status. Students were grouped according to those who had earned a bachelors degree, and students in academic difficulty at NIU. The discriminating varaibles selected for analysis of the two groups were: (1) senior institution hours earned, (2) senior institution GPA, (3) community college hours earned, (4) community college GPA, and (5) community college degree. These five variables were chosen because they represent the major elements of a reverse transfers academic record available upon application for admission to NIU. It would be of value to know what (if any) value these variables have in relation to their final NIU status.

When ACT score and high school class rank were added to the discriminant analysis with the five preceding variables they added very little to the results. ACT score was not found to be a significant variable in predicting NIU status. High school class rank was last in the rank order of signiificant varaibles listed accounting for 2.7 percent of the explained variance in the discriminant analysis. This variable should be studied further but the large number of missing values for high school class rank made it impossible to analyze it fully. Academic difficulty in the initial senior institution was also analyzed, but it was not found

to be a discriminating variable for the population. The academic difficulty variable is really a subset of the variable senior institution GPA which was a predicting variable.

The five variables under study for the two groups produced a canonical correlation of + 0.466 (see Table 29). The Wilks Lambda value of 0.783 represents a value of $1 - r^2$ to give a measure of the unexplained variance that the 5 variables produced in the analysis. This indicates that 21.7 percent of the variance in the relationship between NIU status groups could be explained by the 5 variables under study. The contribution of the five variables to the explained variance were: community college GPA 15 percent; senior institution GPA 3 percent; community college hours earned 2.5 percent; senior institution hours earned 0.8 percent; and community college degree 0.5 percent.

The discriminant analysis generated a linear formula of best fit for the five variables and the reverse transfers NIU status. The formulas were used to predict the students NIU status from their statistics on the 5 variables and compared with their actual NIU status (see Table 30). The resulting classification showed that 79 percent of the reverse transfers NIU status could be correctly predicted.

The canonical discriminant functions evaluated at group means for the two groups (group centroids) were: bachelors degree +0.30 and academic difficulty and dismissal -0.92. (Based on a Z score mean of 0 and standard deviation of 1).

Table 29

Canonical Discriminant Functions for Reverse Transfer Student Variables: Senior Institution and Community College Hours Earned, Grade Point Averages, and Associate Degree Earned (N = 219)

Canonical Correlation	Wilk's Lambda	Chi-Squared	d.f.	Significance
+ 0.466	0.783	52.525	5	0.0000

Table 30

Classification Results Using Five Senior Institution and Community College Variables to Predict NIU Status (N=219)

Actual Group	Cases	Predicted Group Membership: Bachelors Degree		Academic Difficulty	
Bachelors Degree	165	151	91.5%	14	8.5%
Academic Difficulty	54	32	59.3%	22	40.7%

Percent of grouped cases correctly classified: 79.00%

The five discriminating variables standardized canonical discriminant function coefficients in rank order were: 1) community college GPA +0.67; 2) senior institution GPA +0.52; 3) community college hours earned +0.38; 4) senior institution hours earned +0.21; 5) community college degree -0.19. The rank order of these coefficients indicates their relative value in predicting their NIU status. The results show that grade point averages are of greater relative importance than number of hours earned. Also in the two categories the school most recently attended was of greater importance than the school first attended. This information is of value for students in previous academic difficulty, it indicates that their status at NIU is more likely to be a function of their community college performance than their senior institution performance.

CONCLUSIONS

1. Reverse transfers are returning to the university, the 269 in this study represents 15 percent of the total number of students who transferred to NIU in a single academic year.

2. In the initial senior institution, the reverse transfers earned an average of one years college credit (32 semester hours). While attending the senior institution an average of 2.9 semesters.

3. A total of 40.9 percent of the reverse transfers earned a GPA of less than 2.0 at the initial senior institution. A total of 45 percent were in academic difficulty in the initial senior institution attended.

4. Reverse transfers in academic difficulty at their initial senior institution, earned an average GPA of 1.59; students not in academic difficulty earned an overall GPA of 2.63.

5. While attending the community college, the reverse transfers earned an average of 36.42 semester hours in an average of 4.16 semesters.

6. The average GPA at the community college (3.09) was nine-tenths of a point higher than the senior institution average GPA of 2.17. Students in previous academic difficulty raised their average GPA one and four-tenths points in the community college from 1.59 in the senior institution to 2.99.

7. Students in academic difficulty in their initial

senior institution are more likely to complete an associate degree in the community college(66.9 percent) than students in good standing (45.3 percent) prior to transferring back to a senior institution.

8. At NIU, after leaving the community college the reverse transfers who completed a bachelors degree earned an average of 63 semester hours of credit. Students who did not complete a bachelors degree averaged only 22 semester hours of course work.

9. The average GPA at NIU dropped four-tenths of a point from the average GPA at the community college to 2.66 from 3.09.

10. A total of 73.6 percent of the students in previous academic difficulty earned a GPA of 2.0 or higher when enrolled at NIU after leaving the community college.

11. In the five years since the reverse transfers entered NIU, a total of 61.3 percent completed a bachelors degree. Of the remaining students, 18.5 percent were in good standing and 20 percent were in academic difficulty at NIU.

12. Reverse transfer students in academic difficulty at their initial senior institution were analyzed for NIU status by two groups, those who attended NIU as their first senior institution and those who did not attend NIU as their first senior institution. The NIU returnees attained a 34.2 percent bachelors degree graduation rate while students new to NIU attained a 65.1 percent graduation rate.

13. Only sixteen percent of the reverse transfers availed themselves of the opportunity to earn proficiency credit in the institutions of higher education they attended. Most of these students received their proficiency credit at NIU and 76.7 percent of the students who earned proficiency credit completed a bachelors degree.

14. A discriminant analysis of the variables measuring academic progress before entering NIU and their final NIU status showed that five variables accounted for 21.7 percent of the explianed variance the canonical correlation of +0.466 produced. The five variables and their percent explained variance were: (1) community college GPA 15 percent, (2) senior institution GPA 3 percent, (3) community college hours earned 2.5 percent, (4) senior institution hours earned 0.8 percent, and (5) community college degree 0.5 percent. When analyzing reverse transfers previous academic performance, their GPA's were found to be of greater relative importance than the number of hours earned. Their community college performance was of greater value than their senior institution performance in predicting their final NIU status.

15. The discriminant analysis equation for the five variables (community college and senior institution GPA's & hours earned, and community college degree) were able to correctly classify 79 percent of the reverse transfers with their actual final NIU status.

RECOMMENDATIONS

1. The reverse transfer student population's academic performance is in need of further study. This study should be replicated at a later time and in diffrent universities to obtain further information on the reverse transfer population.

2. A portion of the reverse transfer student population has been returning to senior colleges and universities. The results of this study indicates that they are likely to succeed in completing a bachelors degree. These students should be admitted to the university on the basis of their community college performance with little emphasis on their performance at their initial senior institution.

3. Among reverse transfers in academic difficulty in their initial senior institution, the students who were returning to NIU were significantly less likely to complete a bachelors degree than students in academic difficulty who attended a different initial senior institution. It probably would be advisable that students in previous academic difficulty be counseled to attend a different senior institution than the one they first attended.

4. Since only half of the reverse transfers were in academic difficulty and not in need of recovering their GPAs in a community college, why do they attend them? A reverse transfer who completes a bachelors degree on average has attended postsecondary institutions for 12.8 semesters. This

means that they are attending college for 2½ years longer than is necessary to earn four years of college credit. This raises questions about the reasons why students reverse transfer and the lengthly expensive process these students undertake in completing an undergraduate degree. Would better counseling of students in high school and college concerning career choices and type of college to attend serve to reduce this long convoluted process reverse transfers are taking in obtaining a college degree? What role does personal and financial considerations play in reverse transferring as well as the variety of college environments and maturity level of the students involved? The reverse transfer process seems to be the result of problems that might be better resolved before the student reverse transfers. However, the reverse transfer process does permit an avenue for students in higher education to pursue their educational goals and enables many to complete undergraduate programs of study. This avenue should remain open for anyone willing to devote the time & energy necessary to pursue it.

REFERENCES

(1) Illinois Council on Articulation, Performance of Transfer Students Within Illinois Institutions of Higher Learning (Chicago: Council on Articulation, Illinois Conference on Higher Education, 1971), p. 6.

(2) Illinois Board of Higher Education, Data Book on Illinois Higher Education (Springfield: Illinois Board of Higher Education, May, 1978), p. 175.

(3) James A. Swedler, "The Reverse Transfer Student: A Study of Personal and Academic Backgrounds, Transfer Problems, Goals, and Evaluations of Educational Services" (Ed. D. dissertation, Northern Illinois University, 1979), p.70.

Appendix A

Senior Institutions Attended by State

Table 31

Senior Institutions Reverse Transfers Attended by State
(N=314)

School	N	%
Arizona		
Arizona State University	1	0.3
Northern Arizona University	2	0.6
University of Arizona	1	0.3
Arkansas		
John Brown University	1	0.3
Colorado		
Adams State College	1	0.3
University of Colorado	1	0.3
University of Denver	1	0.3
University of Northern Colorado	1	0.3
Florida		
Florida State University	2	0.6
Marymount College	1	0.3
St. Leo College	1	0.3
University of Florida	1	0.3
Illinois		
Public Universities		
Northern Illinois Univeristy	74	23.6
Southern Illinois University	10	3.2
Eastern Illinois University	8	2.5
Western Illinois University	13	4.1
University of Illinois		
Champaign-Urbana	25	8.0
Chicago Circle	9	2.9
Illinois State Univeristy	4	1.2
Chicago State University	2	0.6
Subtotal	145	46.1
Private Universities		
Bradley University	2	0.6
De Paul University	1	0.3
Illinois Wesleyan University	1	0.3

School	N	%
Loyola University	12	3.8
Northwestern University	1	0.3
Roosevelt University	1	0.3
Subtotal	18	5.6
Private Colleges		
Aurora College	6	1.9
Barat College	2	0.6
Blackburn College	1	0.3
College of St. Francis	1	0.3
DeVry Institute of Technology	1	0.3
Elmhurst College	3	0.9
Greenville College	1	0.3
Illinois Benedictine College	3	0.9
Judson College	1	0.3
Lake Forest College	1	0.3
Mac Murray College	1	0.3
Monmouth College	2	0.6
Moody Bible Institute	1	0.3
Mundelein College	1	0.3
National College of Education	1	0.3
North Central College	2	0.6
Olivet Nazarene College	1	0.3
Rockford College	8	2.5
St. Xavier College	1	0.3
Shimer College	1	0.3
Trinity College	1	0.3
Vandercook College of Music	1	0.3
Wheaton College	1	0.3
Subtotal	42	13.3
Indiana		
Earlham College	1	0.3
Indiana University	1	0.3
Manchester College	1	0.3
Purdue University	1	0.3
Valparaiso University	4	1.2
Iowa		
Coe College	1	0.3
Drake Univeristy	3	0.9
Iowa State University	3	0.9
Iowa Wesleyan University	1	0.3
Marycrest College	1	0.3

Table 31 (continued)

School	N	%
Simpson College	1	0.3
University of Iowa	2	0.6
Westmar College	1	0.3
Kansas		
Friends University	1	0.3
Benedictine College	1	0.3
Kentucky		
Campbellsville College	1	0.3
Louisiana		
North West State University	1	0.3
Maryland		
John Hopkins University	1	0.3
University of Maryland	1	0.3
Michigan		
Delta College	1	0.3
Ferris State College	1	0.3
Hope College	1	0.3
Madonna College	1	0.3
University of Detroit	1	0.3
Western Michigan Univeristy	1	0.3
Minnesota		
Bethel College	1	0.3
Mankato State College	1	0.3
Moorehead State University	1	0.3
St. Johns University	1	0.3
Missouri		
Central Missouri State	1	0.3
Evangel College	1	0.3
South West Missouri State College	1	0.3
Stephens College	1	0.3

Table 31 (continued)

School	N	%
Nebraska		
Creighton University	1	0.3
New Mexico		
New Mexico Highlands University	1	0.3
New Mexico State University	1	0.3
University of New Mexico	1	0.3
New York		
Brooklyn College	2	0.6
Hofstra University	1	0.3
New York University	1	0.3
North Carolina		
University of North Carolina at Greensboro	1	0.3
Ohio		
Capital University	1	0.3
Kent State University	1	0.3
Miami University	1	0.3
Oklahoma		
Oklahoma College of Liberal Arts	1	0.3
South West State College	1	0.3
University of Oklahoma	1	0.3
University of Tulsa	1	0.3
Oregon		
Lewis & Clark College	1	0.3
Multnomah School of the Bible	1	0.3
University of Oregon	1	0.3
Pennsylvania		
Immaculata College	1	0.3
South Carolina		
Bob Jones University	1	0.3

Table 31 (continued)

School	N	%
South Dakota		
Augustana College	1	0.3
Texas		
Central Texas College	1	0.3
Jarvis Texas College	1	0.3
Texas Christian University	1	0.3
Texas Wesleyan College	1	0.3
West Texas State University	1	0.3
Utah		
Brigham Young University	1	0.3
Utah State University	1	0.3
Vermont		
Windham College	1	0.3
West Virginia		
Bethany College	1	0.3
Wisconsin		
Beloit College	1	0.3
Carthage College	1	0.3
Marquette University	1	0.3
Northland College	1	0.3
Ripon College	1	0.3
Stout State University	1	0.3
University of Wisconsin		
Kenosha	1	0.3
La Crosse	1	0.3
Madison	4	1.2
Milwaukee	1	0.3
Oshkosh	1	0.3
Platteville	3	0.9
Superior	2	0.6
Whitewater	3	0.9
Wyoming		
University of Wyoming	1	0.3
Total	314	100.0

Table 32

Senior Institutions location by State
(N=314)

State	N	%
Arizona	4	1.3
Arkansas	1	0.3
Colorado	4	1.3
Florida	5	1.6
Illinois	205	65.3
Indiana	8	2.5
Iowa	13	4.1
Kansas	2	0.6
Kentucky	1	0.3
Louisiana	1	0.3
Maryland	2	0.6
Michigan	6	1.9
Minnesota	4	1.3
Missouri	4	1.3
Nebraska	1	0.3
New Mexico	3	0.9
New York	4	1.3
North Carolina	1	0.3
Ohio	3	0.9
Oklahoma	4	1.3
Oregon	3	0.9
Pennsylvania	1	0.3
South Carolina	1	0.3
South Dakota	1	0.3
Texas	5	1.6
Utah	2	0.6
Vermont	1	0.3
West Virginia	1	0.3
Wisconsin	22	7.0
Wyoming	1	0.3
Total	314	100.0 *

Number of States = 30

* Due to rounding total percent may exceed 100.

Appendix B

Community Colleges Attended by State

Table 33

Community Colleges Attended by State
(N=293)

School	N	%
California		
Sierra College	1	0.3
Southwestern College	1	0.3
Colorado		
El Paso Community College	1	0.3
Florida		
Miami-Dade Junior College	1	0.3
Illinois		
Black Hawk College East	1	0.3
City Colleges of Chicago		
Daley College	4	1.4
Kennedy-King College	4	1.4
Olive-Harvey College	4	1.4
Wright College	5	1.7
College of Du Page	33	11.3
College of Lake County	12	4.1
Danville Junior College	1	0.3
Elgin Community College	25	8.5
Highland Community College	7	2.4
Illinois Central College	3	1.0
Illinois Valley Community College	1	0.3
Joliet Junior College	6	2.0
Kankakee Community College	1	0.3
Kendall College	3	1.0
Kishwaukee College	36	12.3
Mc Henry County College	5	1.7
Moraine Valley Community College	11	3.8
Oakton Community College	6	2.0
Parkland College	4	1.4
Prairie State College	7	2.4
Rend Lake College	2	0.7
Rock Valley College	34	11.6
Sauk Valley College	5	1.7
Thornton Community College	5	1.7
Triton College	9	3.0
Waubonsee Community College	18	6.1
William Rainey Harper College	33	11.3

Table 33 (continued)

School	N	%
New Jersey		
Ocean County College	1	0.3
New York		
Suffolk County Community College	1	0.3
Oregon		
Clackamas Community College	1	0.3
Wisconsin		
Rice Center	1	0.3
Total	293	100.0

Number of States = 8

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